CLAIMS

What is claimed is:

1. A recording method, comprising:

separately recording to an optical recording medium:

temporary defect information with a size equal to a multiple (N=0,1,2, ... ) of a predetermined size (K) among entire temporary defect information, and

remaining temporary defect information, excluding the temporary defect information with the size equal to K x N, among the entire temporary defect information.

2. The recording method of claim 1, further comprising:

recording size information of the temporary defect information with the size equal to K x N, information indicating a location of the temporary defect information with the size equal to K x N, and information indicating a location of the remaining temporary defect information, excluding the temporary defect information with the size equal to K x N, to the optical recording medium.

3. The recording method of claim 1, wherein the optical recording medium is a write once medium.

4. A recording method, comprising:

continuously recording temporary defect information with a size equal to a multiple (N=0, 1, 2, ... ) of a predetermined size (K) among entire temporary defect information to at least one portion of an optical recording medium; and

accumulating and recording remaining temporary defect information, excluding the temporary defect information with the size equal to K x N, among the entire temporary defect information to the optical recording medium during each operation, until a size of the accumulated temporary defect information reaches K.

5. The recording method of claim 4, further comprising:

recording size information of the temporary defect information with the size (K x N) equal to the multiple (N=0, 1, 2, ... ) of the predetermined size (K), information indicating a location of the temporary defect information with the size equal to the multiple of the predetermined size, and information indicating a location of the accumulated temporary defect information, to the optical recording medium.

6. The recording method of claim 4, further comprising:

if a size of the remaining temporary defect information reaches the predetermined size K during one of the operations, continuously recording the temporary defect information with the size equal to K x N and the remaining temporary defect information, excluding the temporary defect information with the size equal to K x N, to at least one portion of the optical recording medium.

7. The recording method of claim 6, further comprising:

recording size information (K x N + K) of the continuously recorded temporary defect information and information indicating a location of the continuously recorded temporary defect information to the optical recording medium.

8. A recording apparatus, comprising:

a controller controlling separately recording temporary defect information with a size equal to a multiple (N=0,1,2, ... ) of a predetermined size (K) among entire temporary defect information and remaining temporary defect information, excluding the temporary defect information with the size equal to K x N, among the entire temporary defect information to an optical recording medium.

9. The recording apparatus of claim 8, wherein the controller further controls recording size information of the temporary defect information with the size equal to K x N, information indicating a location of the temporary defect information with the size equal to K x N and information indicating a location of the remaining temporary defect information, excluding the temporary defect information with the size equal to K x N, to the optical recording medium.

10. The recording apparatus of claim 8, wherein the optical recording medium is a write once medium.

11. A recording apparatus, comprising:

a first controller which controls continuously recording temporary defect information with a size equal to a multiple (N=0, 1, 2, ... ) of a predetermined size (K) among entire temporary defect information to at least one portion of an optical recording medium; and

a second controller which controls accumulatively recording remaining temporary defect information, excluding the temporary defect information with the size equal to K x N, among the entire temporary information to the optical recording medium during each operation, until a size of the accumulated temporary defect information reaches K.

12. The recording apparatus of claim 11, further comprising:

a third controller which controls recording the temporary defect information with the size equal to K x N, information indicating a location of the temporary defect information with the size equal to K x N, and information indicating a location of the remaining temporary defect information to the optical recording medium.

13. The recording apparatus of claim 11, further comprising:

a fourth controller which controls continuously recording the temporary defect information with the size equal to K x N and the accumulated temporary defect information with the size equal to K to at least one portion of the optical recording medium if a size of the remaining temporary defect information reaches K during one of the operations.

14. The recording apparatus of claim 13, further comprising:

a fifth controller which controls recording information with a size (K x N + K) including the continuously recorded temporary defect information and information indicating a location of the continuously recorded temporary defect information to the optical recording medium.

15. An optical recording medium, comprising:

a first area, in which temporary defect information with a size equal to a multiple (N=0, 1, 2, ... ) of a predetermined size K among entire temporary defect information is recorded; and

a second area, in which the temporary defect information with the size equal to K x N, and remaining temporary defect information, excluding the temporary defect information with the size equal to K x N, among the entire temporary defect information are separately recorded.

16. The optical recording medium of claim 15, further comprising:

a third area, in which size information of the temporary defect information with the size equal to K x N of the predetermined size, information indicating a location of the temporary defect information with the size equal to K x N, and information indicating a location of the accumulated temporary defect information is recorded.

17. The optical recording medium of claim 15, wherein the optical recording medium is a write once medium.

18. An optical recording medium, comprising:

a first area, in which temporary defect information with a size equal to a multiple (N=0, 1, 2, ...) of a predetermined size K among entire temporary defect information is continuously recorded; and

a second area, in which remaining temporary defect information, excluding the temporary defect information with the size equal to K x N, among the entire temporary defect information is accumulatively recorded during each operation until a size of the accumulated temporary defect information reaches the predetermined size K.

19. The optical recording medium of claim 18, further comprising:

a third area, in which size information of the temporary defect information with the size equal to K x N, information indicating a location of the temporary defect information with the size equal to K x N, and information indicating a location of the accumulated temporary defect information is recorded.

20. The optical recording medium of claim 18, further comprising:

a fourth area, in which if a size of the remaining temporary defect information reaches the predetermined size K in the operation, the temporary defect information with the size equal to K x N and the remaining temporary defect information are continuously recorded.

21. The optical recording medium of claim 20, further comprising:

a fifth area, in which size information of the continuously recorded temporary defect information and information indicating a location of the continuously recorded temporary defect information are recorded.

22. A computer-readable medium having embodied thereon a computer program executing a recording method, comprising:

separately storing temporary defect information with a size equal to a multiple (N=0, 1, 2, ... ) of a predetermined size (K) among entire temporary defect information, and accumulated temporary defect information, excluding the temporary defect information with the size equal to K x N, among the entire temporary defect information; and

storing size information of the temporary defect information with the size equal to K x N, information indicating a location of the temporary defect information with the size equal to K x N, and information indicating a location of the remaining temporary defect information.

23. A recording medium defect management method, comprising:

accumulating temporary defect information during a verify after write operation;

recording the temporary defect information in a first area on the recording medium when the accumulated temporary defect information reaches a predetermined size; and

recording management information in a second area on the recording medium corresponding to the predetermined size and a location of the accumulated temporary defect information.

24. The method of claim 23, further comprising:

accumulating excess temporary defect information when the accumulated temporary defect information exceeds the predetermined size;

updating the recorded temporary defect information in the first area by recording the accumulated excess temporary defect information adjacent to the accumulated temporary defect information; and

updating the management information in the second area on the recording medium to include management information corresponding to a location of the accumulated excess temporary defect information.

25. The method of claim 24, wherein the updating the management information comprises storing a step #i pointer corresponding to the location of the accumulated excess temporary defect information.

26. The method of claim 24, further comprising:

recording a total temporary defect information when the accumulated excess temporary defect information reaches the predetermined size corresponding to the accumulated temporary defect information and the accumulated excess temporary defect information; and

updating the management information in the second area on the recording medium corresponding to a location and size of the total temporary defect information.

27. The method of claim 26, wherein the size of the recorded total temporary defect information is equal to a multiple of the predetermined size.

28. The method of claim 26, further comprising:

finalizing the temporary defect information, wherein only a significant temporary defect information is read; and

recording the read significant temporary defect information in a predetermined defect management area of the recording medium.

29. The method of claim 26, wherein the updating the management information comprises storing a keep #i size and a keep #i pointer corresponding to the location and the size of the total temporary defect information.

30. A computer-readable medium having embodied thereon a computer program executing a recording method, comprising:

accumulating temporary defect information during a verify after write operation;

recording the temporary defect information in a first area on the recording medium when the accumulated temporary defect information reaches a predetermined size; and

recording management information in a second area on the recording medium corresponding to the predetermined size and a location of the accumulated temporary defect information.